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PTO/SB/05 (4/98)  
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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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<b>UTILITY PATENT APPLICATION TRANSMITTAL</b> (Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))	<b>Attorney Docket No.</b>	<b>PI13414</b>
	<b>First Inventor or Application Identifier</b>	<b>Dieter Blum</b>
	<b>Title</b>	<b>METHOD AND APPARATUS FOR THE SPECTRALLY EFFICIENT ENCODING AND DECODING OF DISCRETE DATA INTO AND FROM ANALOG WAVEFORMS</b>
	<b>Express Mail Label No.</b>	<b>EL589683488US</b>

<b>APPLICATION ELEMENTS</b> See MPEP chapter 600 concerning utility patent application contents.	<b>ADDRESS TO:</b> Assistant Commissioner for Patents Box Patent Application Washington DC 20211	
1. <input checked="" type="checkbox"/> *Fee Transmittal Form (e.g., PTO/SB117) (Submit an original and a duplicate for fee processing)	5. <input type="checkbox"/> Microfiche Computer Program (Appendix)	
2. <input checked="" type="checkbox"/> Specification [Total Pages <b>9</b> ] (preferred arrangement set forth below) <ul style="list-style-type: none"><li>- Descriptive title of the Invention</li><li>- Cross References to Related Applications</li><li>- Statement Regarding Fed sponsored R &amp; D</li><li>- Reference to Microfiche Appendix</li><li>- Background of the Invention</li><li>- Brief Summary of the Invention</li><li>- Brief Description of the Drawings (if filed)</li><li>- Detailed Description</li><li>- Claim(s)</li><li>- Abstract of the Disclosure</li></ul>	6. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) <ul style="list-style-type: none"><li>a. <input type="checkbox"/> Computer Readable Copy</li><li>b. <input type="checkbox"/> Paper Copy (identical to computer copy)</li><li>c. <input type="checkbox"/> Statement verifying identity of above copies</li></ul>	
3. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets <b>1</b> ]	<b>ACCOMPANYING APPLICATION PARTS</b> 7. <input type="checkbox"/> Assignment Papers (cover sheet & document(s)) 8. <input type="checkbox"/> 37 C.F.R. §3.73(b) Statement of Power of Attorney (when there is an assignee) <input type="checkbox"/> Attorney 9. <input type="checkbox"/> English Translation Document (if applicable) 10. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS Citations 11. <input checked="" type="checkbox"/> Preliminary Amendment 12. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized) * Small Entity 13. <input checked="" type="checkbox"/> Statement(s) filed in prior application, (PTO/SB/09-12) Status still proper and desired 14. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed) 15. <input checked="" type="checkbox"/> Other: <u>Transmittal Letter w/ Express Cert. of Mailing</u>	
4. Oath or Declaration [Total Pages <b>10</b> ] <ul style="list-style-type: none"><li>a. <input checked="" type="checkbox"/> Newly executed (original or copy)</li><li>b. <input type="checkbox"/> Copy from a prior application (37 C.F.R. § 1.63(d)) (for continuation/divisional with Box 16 completed)</li><li><input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b> Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).</li></ul>		
16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment: <input type="checkbox"/> Continuation <input type="checkbox"/> Divisional <input type="checkbox"/> Continuation-in-part (CIP) of prior application No: _____ Prior application in formation: Examiner _____ Group I Art Unit _____		
For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.		

<b>17. CORRESPONDENCE ADDRESS</b>					
<input checked="" type="checkbox"/> Customer Number or Bar Code Label <b>22931</b> or <input type="checkbox"/> Correspondence address below (Insert Customer No or Attach bar code label here)					
Name	Robert B. Hughes Hughes & Schacht P.S.				
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Name (Print/Type)	Robert B. Hughes	Registration No. (Attorney/Agent)	19,304
Signature	<i>Robert B. Hughes</i>	Date	December 01, 2000

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

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# FEE TRANSMITTAL for FY 2000

Patent fees are subject to annual revision.

Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12.

See 37 C.F.R. §§ 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT \$ 355.00

## Complete if Known

Application Number	
Filing Date	December 01, 2000
First Named Inventor	Dieter Blum
Examiner Name	
Group / Art Unit	
Attorney Docket No.	P113414

## METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to credit any overpayment to the account stated below.

Deposit Account Number 08-3260

Deposit Account Name

☒ Charge Any Additional Fee Required  
Under 37 CFR §§ 1.16 and 1.17

2. ☒ Payment Enclosed:

☒ Check ☐ Money Order ☐ Other

## FEE CALCULATION

## 1. BASIC FILING

Large Entity Small Entity

Fee Code (\$)	Fee Description	Fee Paid
101 760 201 380	Utility filing fee	355.00
106 310 206 155	Design filing fee	
107 480 207 240	Plant filing fee	
108 760 208 380	Reissue filing fee	
114 150 214 75	Provisional filing fee	

SUBTOTAL (1) \$ 355.00

## 2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
3	-20 = 0	9.00	\$ 0.00
2	-3 = 0	39.00	\$ 0.00
Multiple Dependent	none		\$ 0.00

\*\*or number previously paid, if greater, - For Reissues, see below

Large Entity Small Entity

Fee Code (\$)	Fee Description
103 18 203 9	Claims in excess of 20
102 78 202 39	Independent claims in excess of 3
104 260 204 130	Multiple dependent claim, if not paid
109 78 209 39	** Reissue independent claims over original patent
110 18 210 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) \$ 0.00

## FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code (\$)	Fee Description	Fee Paid
105 130 205 65	Surcharge - late filing fee or oath	
127 50 227 25	Surcharge - late provisional filing fee or cover sheet.	
139 130 139 130	Non-English specification	
147 2,520 147 2,520	For filing a request for reexamination	
112 920* 112 920*	Requesting publication of SIR prior to Examiner action	
113 1,840* 113 1,840*	Requesting publication of SIR after Examiner action	
115 110 215 55	Extension for reply within first month	
116 380 216 190	Extension for reply within second month	
117 870 217 435	Extension for reply within third month	
118 1,360 218 680	Extension for reply within fourth month	
128 1,850 228 925	Extension for reply within fifth month	
119 300 219 150	Notice of Appeal	
120 300 220 150	Filing a brief in support of an appeal	
121 260 221 130	Request for oral hearing	
138 1,510 138 1,510	Petition to institute a public use proceeding	
140 110 240 55	Petition to revive - unavoidable	
141 1,210 241 605	Petition to revive - unintentional	
142 1,210 242 605	Utility issue fee (or reissue)	
143 430 243 215	Design issue fee	
144 580 244 290	Plant issue fee	
122 130 122 130	Petitions to the Commissioner	
123 50 123 50	Petitions related to provisional applications	
126 240 126 240	Submission of Information Disclosure Stmt	
581 40 581 40	Recording each patent assignment per property (times number of properties)	
146 760 246 380	Filing a submission after final rejection (37 CFR § 1.129(a))	
149 760 249 380	For each additional invention to be examined (37 CFR § 1.129(b))	

Other fee (specify) \_\_\_\_\_

Other fee (specify) \_\_\_\_\_

Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 0.00)

## SUBMITTED BY

Name (Print/Type) Robert B. Hughes

Registration No. (Attorney/Agent)

19,304

## Complete (if applicable)

Telephone (360)647-1296

Signature

Date

December 01, 2000

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12/01/00  
16975 U.S. PTO

12-04-00

A

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PATENT, TRADEMARK  
& COPYRIGHT LAW

Assistant Commissioner for Patents  
U.S. Patent and Trademark Office  
Washington, D.C. 20231

December 01, 2000  
Docket No. P113414

16990 U.S. PTO  
09/728633  
12/01/00

Sir:

Transmitted herewith for filing is a Patent application claiming Small Entity Status:

Applicant: Mr. Dieter Blum  
Title: METHOD AND APPARATUS FOR THE SPECTRALLY EFFICIENT  
ENCODING AND DECODING OF DISCRETE DATA INTO AND FROM  
ANALOG WAVEFORMS

Application is claiming priority benefit under 35 U.S.C. §119(e) of U.S. Serial  
Number(s) and Filing Date(s):

<u>Serial Number</u>	<u>Filing Date</u>
60/168,781	12/2/99

1. Enclosed are:

- a) Specification, claims (9 pages total: 6 pages of specification, 3 pages of claims);
- b) 1-page Utility Patent Application Transmittal;
- c) 1-page Fee Transmittal in duplicate form;
- d) 1 sheet of informal drawings;
- e) Unexecuted Combined Declaration and Power of Attorney;
- f) 1-page Preliminary Amendment;
- g) Certificate of Express Mailing requesting treatment under 37 CFR 1.10, Express Mail Filing Date of December 01, 2000, Label No. EL589683488US;
- h) A check in the amount of \$ 355.00 for Filing Fee; and
- i) A stamped return receipt postcard.

EXPRESS MAIL CERTIFICATE OF MAILING  
37 C.F.R. §1.10

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service, Express Mail Post Office to Addressee, in an envelope addressed to BOX PATENT APPLICATION, Assistant Commissioner for Patents, Washington, DC 20231, on the date shown below.

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Signature: 

Print Name: Robin Fry  
DATE MAILED: December 01, 2000

09/728633